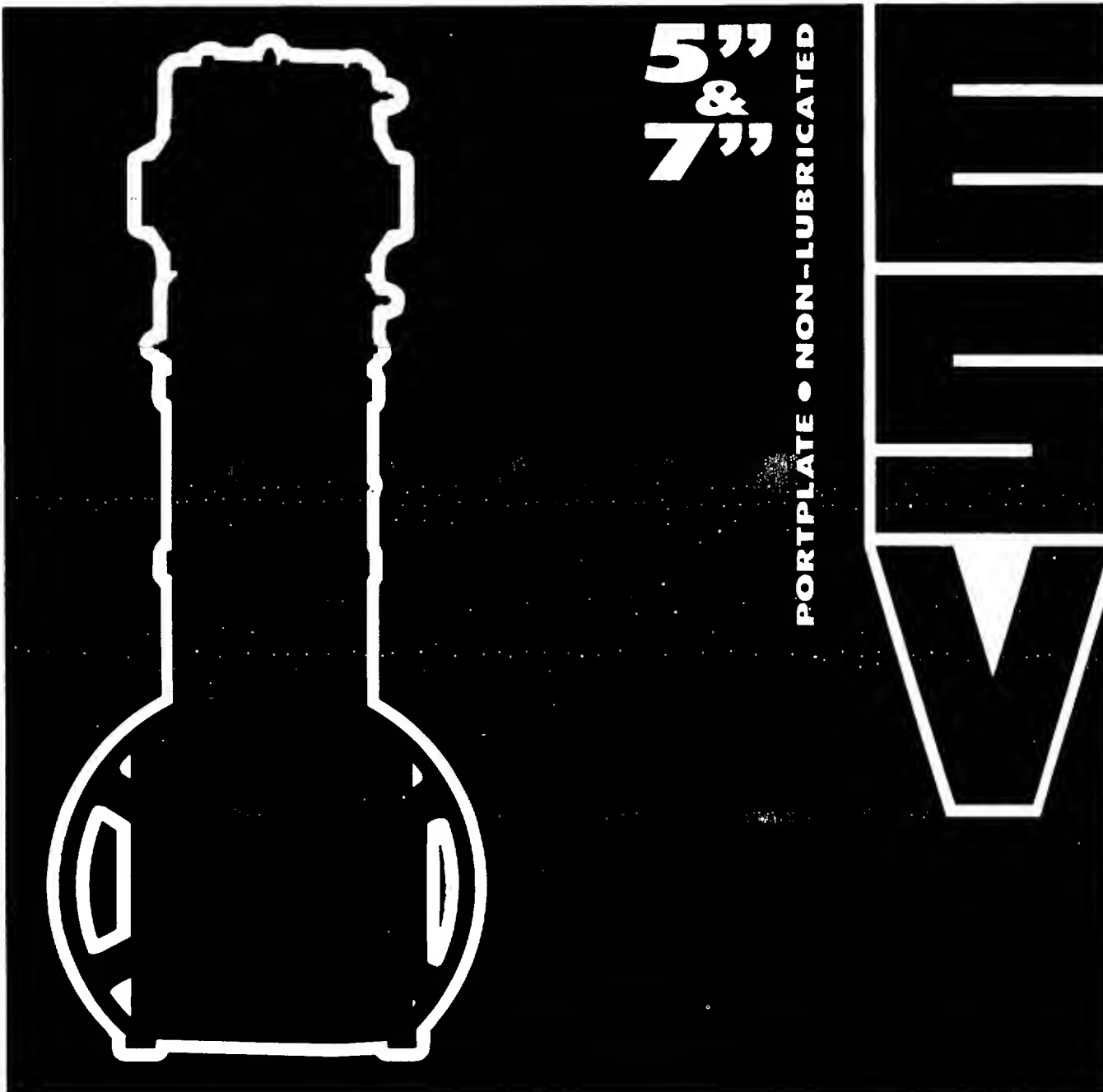


Parts List



INGERSOLL-RAND®

AIR COMPRESSORS

© Ingersoll-Rand Company 1981
Printed in U.S.A.

Form AP 0227-C
January 1979
Supersedes April 1977

ESV NON LUBRICATED PORTPLATE TYPE COMPRESSORS COVERED BY THIS LIST

Machine Size	Serial Number Designation	Valve Size		Machine Size	Serial Number Designation	Valve Size	
		Discharge	Inlet			Discharge	Inlet
*6 x 5	DCVN	A243	A243	8 x 7	EFVN	A357	A357
7 x 5	ECVN	A243	A243	9 x 7	FFVN	A829	A465
8 x 5	FCVN	A357	A357	9-1/2 x 7	GFVN	A829	A465
*9-1/2 x 5	GCVN	A829	A465				

*Non-Production Units

ORDERING INSTRUCTIONS

Refer all communications to the nearest Ingersoll-Rand Parts & Service Distributor.

HOW TO ORDER COMPRESSOR PARTS

When ordering replacement parts, please specify:

1. The MODEL and SERIAL NUMBER as stamped on Compressor Nameplate.
2. The FORM NUMBER of this booklet.
3. The QUANTITY, DESCRIPTION & REFERENCE NUMBER exactly as listed.

EXAMPLE

Send the following parts for a Model

Serial No. Form

1 Piston and Rod Complete 3-41

2 Piston Rings 3-40

1 Inlet Valve Cover 3-12

HOW TO SELECT RECOMMENDED SPARES

This catalog contains a listing of the parts which are included in each of the following classes of recommended spares.

CLASS I – MINIMUM—Suggested for Domestic Service where interruptions in service are not important.

CLASS II – AVERAGE—Suggested for Domestic Service where some interruptions in continuity of service are not objectionable.

CLASS III – MAXIMUM—Suggested for Export or for Domestic Service where interruptions in service are objectionable.

When ordering recommended spares, please follow the procedure as outlined for compressor parts.

To Order Motor Parts Refer to The Motor Manufacturer's Nearest Dealer.

INDEX

HOW TO USE PAGE	4
VISUAL INDEX	5
GROUP ASSEMBLY PARTS LIST	7
RECOMMENDED SPARE PARTS	7

GLOSSARY

VISUAL INDEX,

This section contains overall visual guides which reference the reader to specific group assemblies and sub-assemblies found in the parts list pages.

GROUP ASSEMBLY PARTS LIST,

This part contains the listings and illustrations of the repair parts for your compressor.

Parts are listed in assembly sequence, where applicable. The relationship of an article to its next higher assembly is indicated by indenture. For example:

DESCRIPTION

Unit

- . Assemblies and Detail Parts of Unit
- . Attaching Parts for Assemblies and Detail Parts
- . . Subassemblies
- . . Attaching Parts for Subassemblies
- . . . Detail Parts for Subassemblies, etc.

When an assembly is not broken down immediately after being listed, a reference is made to the listing where the breakdown is made.

Reference Number (Ref Nbr Column)

The reference number is the number assigned to the part in the listing. This reference number consists of the figure and illustration number and identifies the part on the associated illustration. An asterisk indicates not illus-

trated. Parts should be ordered by reference number and description accompanied by the compressor serial number.

ILLUSTRATION NUMBER

If the illustration number on the art is enclosed in a circle ② this indicates an assembly or sub-assembly broken down within the illustration.

Description Column

The Description column contains the standard item names with main noun modifiers.

Units Per Assembly Column (Nbr/Assy)

The quantities specified in this column are the number of parts used per one next-higher assembly and are not necessarily the total number of parts used in the overall unit. The entry "Ref" in this column refers to an assembly which is called for on a preceding illustration and is shown only to show its relationship to another part found in the list. The entry "NP" denotes that the assembly is nonprocurable. The entry "AR" denotes as required or bulk item.

RECOMMENDED SPARE PARTS

This Parts List contains a listing of Recommended Spare Parts in three classes as outlined in the "Ordering Instructions." The listing is given for the entire machine; parts are identified by reference number, number per assembly, description and number recommended per classification. Parts may be visually identified by referring to the figure and illustration number designated in the "Ref Nbr" column.

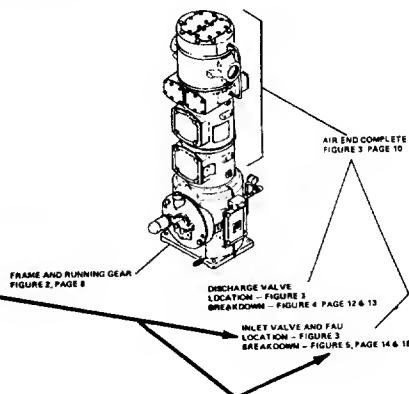
HOW TO USE THIS ILLUSTRATED PARTS CATALOG

VISUAL INDEX

ERV, 5" & 7" STROKE, NON-LUBRICATED
COMPRESSOR COMPLETE
FIGURE 1, PAGE 8

1

USING THE VISUAL INDEX LO-
CATE THE ASSEMBLY IN WHICH
THE PART IS LOCATED. FIND
THE FIGURE NUMBER FOR THE
ASSEMBLY.



2

REFER TO THE FIGURE NUM-
BER SHOWN IN THE VISUAL
INDEX. LOCATE THE FIGURE
ILLUSTRATION NUMBER FOR
THE SPECIFIC PART REQUIRED
(REFERENCE NUMBER).

Ingersoll-Rand

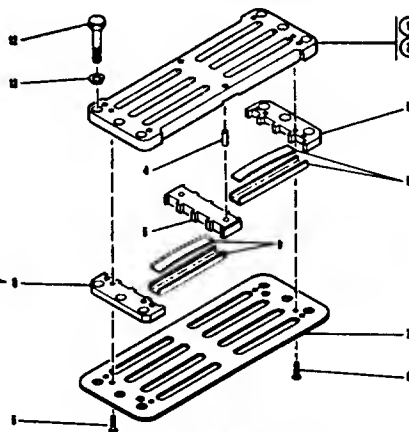


FIGURE 4. DISCHARGE VALVE (A229)

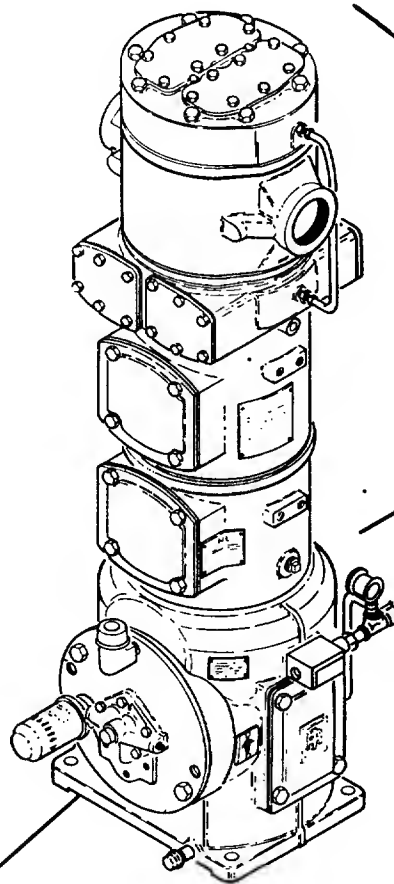
REF NUM	NUM/ ASSY	DESCRIPTION
A-1	1	VALVE COMPLETE-ASISCH
A-2	1	VALVE ASSCH-ASISCH
A-3	1	STOPPLATE ASSCH
A-4	1	STOPPLATE RARE
A-5	1	BOUPL
A-6	2	GUIDE-VALVE
A-7	1	GUIDE-CENTER
A-8	1	PLATE-SEAT
A-9	2	SCREW-PLT HD MACH
A-10	1	SET-CHANNELS - SPA
A-11	4	CAPSCREW
A-12	4	LOCKWASHER

3

LOCATE THE REFERENCE NUM-
BER IN THE GROUP ASSEMBLY
PARTS LIST AND DETERMINE
THE PART DESCRIPTION FOR
ORDERING.

VISUAL INDEX

ESV, 5" & 7" STROKE, NON-LUBRICATED
COMPRESSOR COMPLETE
FIGURE 1, PAGE 6



FRAME AND RUNNING GEAR
FIGURE 2, PAGE 8

AIR END COMPLETE
FIGURE 3, PAGE 10

DISCHARGE VALVE
LOCATION – FIGURE 3
BREAKDOWN – FIGURE 4, PAGE 12 & 13

INLET VALVE AND FAU
LOCATION – FIGURE 3
BREAKDOWN – FIGURE 5, PAGE 14 & 15

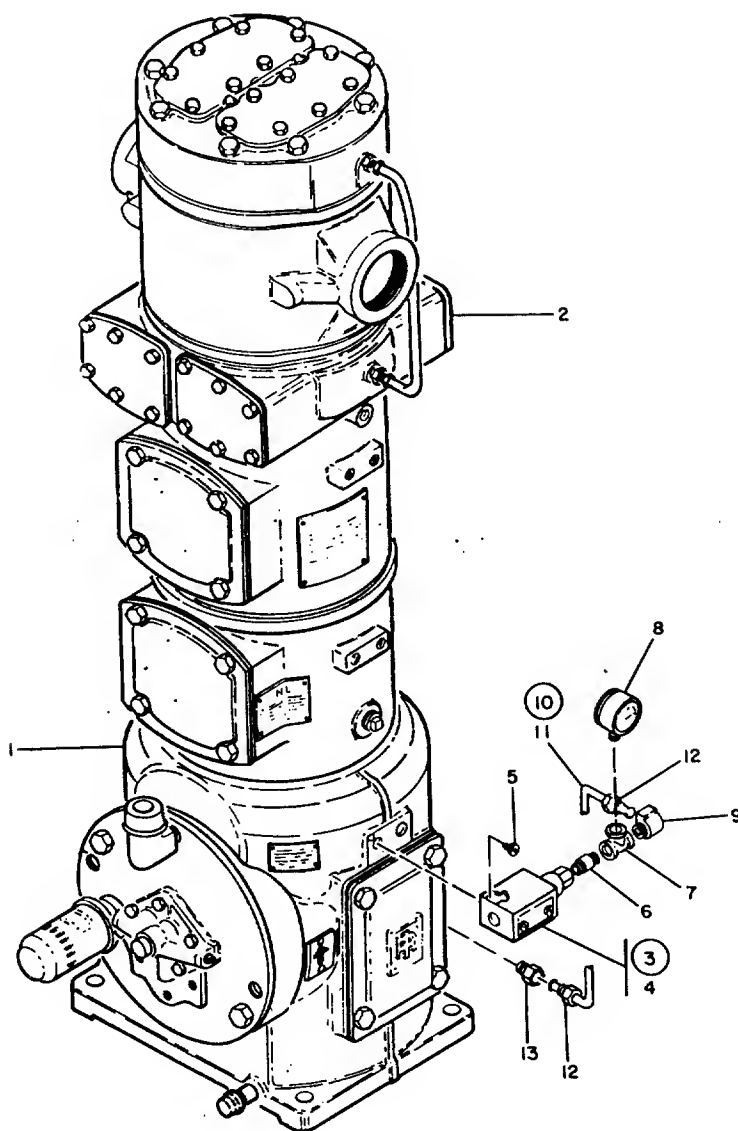


FIGURE 1. COMPRESSOR COMPLETE

REF NBR	NBR/ ASSY	DESCRIPTION
1-	REF	COMPRESSOR COMPLETE
1-1	1	. FRAME & GEAR ASSEMBLY SEE FIG 2 FOR DETAIL BREAKDOWN
1-2	1	. AIR END COMPLETE SEE FIG 3 FOR DETAIL BREAKDOWN
1-3	1	. ACCESSORIES
1-4	1	. . SWITCH-OIL PRES SHUT DOWN
1-5	2	. . SCREW-MACHINE
1-6	1	. . NIPPLE
1-7	1	. . TEE
1-8	1	. . GAUGE-OIL PRESSURE
1-9	1	. . ELBOW
1-10	1	. . TUBING ASSEMBLY
1-11	NP	. . . TUBING-BARE
1-12	NP	. . . NUT-TUBE
1-13	1	. . CONNECTOR

RECOMMENDED SPARES

REF NBR	NBR/ ASSY	DESCRIPTION	REC SPARES CLASS			REF NBR	NBR/ ASSY	DESCRIPTION	REC SPARES CLASS		
			1	2	3				1	2	3
1-4	1	SWITCH-OIL PRES SHUT DO			1	3-31	2	GASKET	2	2	2
1-8	1	GAUGE-OIL PRESSURE		1	1	3-35	2	GASKET-CYLINDER	2	2	2
REF		FRAME + GEAR ASSEMBLY				3-40	2	RING-PISTON	2	2	2
2-5	1	GASKET-FRAME	1	1	1	3-40A	1	RING-WEARING	1	1	1
2-7	1	GAUGE-OIL LEVEL			1	3-41	1	ROD-PISTON COMPLETE	1	1	1
2-9	1	GASKET-COVER	1	1	1	3-51	2	GASKET	1	1	1
2-16	2	BUSHING-MAIN BEARING		2	2	3-59	1	GASKET	1	1	1
2-17	1	CRANKSHAFT ASSEMBLY			1	3-61	1	GASKET	1	1	1
2-21	2	SEAL	2	2	2	3-64	1	GASKET	1	1	1
2-22	1	ROD-CONNECTING + CAP CO			1	REF		PIPING-FAU COMPLETE			
2-23	2	BOLT-CONNECTING ROD		2	2	3-94	2	RING-SCRAPER	2	2	2
2-24	1	WIRE-LOCKING		1	1	3-95	1	RING-SCRAPER	1	1	1
2-26	1	BUSHING-CRANKPIN	1	1	1	3-100	1	GASKET-COVER	1	1	1
2-27	1	BUSHING-CROSSHEAD PIN	1	1	1	REF		VALVE-DISCH (A243-A357)			
2-31	1	BUSHING-OIL PUMP		1	1	4-1	1	VALVE ASSEM DISCH	1	2	2
2-35	1	O-RING M B HOUSING		1	2	4-7	1	SET-CHANNELS & SPRINGS	2	2	2
2-40	1	FILTER-OIL		2	3	REF		VALVE COMPL-DISCH (A829)			
2-41	1	SPRING-RELIEF VALVE		1	1	4-1	1	VALVE ASSEM DISCH	1	2	2
2-45	1	PUMP ASSEMBLY-OIL		1	1	4-8	1	SET-CHAN & SPRINGS	2	2	1
2-50	1	COVER-SHAFT	1	1	1	REF		VALVE-INLET (A243-A357)			
2-53	1	GASKET-COVER	1	1	1	5-1	1	VALVE COMPL INLET	1	2	2
2-58	1	CROSSHEAD COMPLETE			1	5-8	1	SET-CHANNELS SPRINGS	2	2	2
2-63	2	RING-RETAINER	2	2	2	5-17	1	UNLOADER-COMPL	1	2	2
REF		AIR END COMPLETE				5-20	1	O-RING	2	2	2
3-3	1	GASKET-PORTPLATE	1	1	1	5-21	1	RING-PISTON	2	2	2
3-6	1	GASKET-COVER	1	1	1	REF		VALVE-INLET & UNL (A465)			
3-9	1	GASKET-STUFFING BOX	1	1	1	5-1	1	VALVE COMPL INLET	1	2	2
3-10	1	O-RING - STUFFING BOX	1	1	1	5-8	1	SET-CHANNELS & SPRINGS	2	2	2
3-13	4	GASKET-COVER	4	4	4	5-17	1	UNLOADER-COMPL	1	2	2
3-22	1	SET-RING + SPRING	1	1	1	5-20	1	O-RING	2	2	2
3-25	1	GASKET-PACKING CASE	1	1	1	5-21	1	RING-PISTON	2	2	2

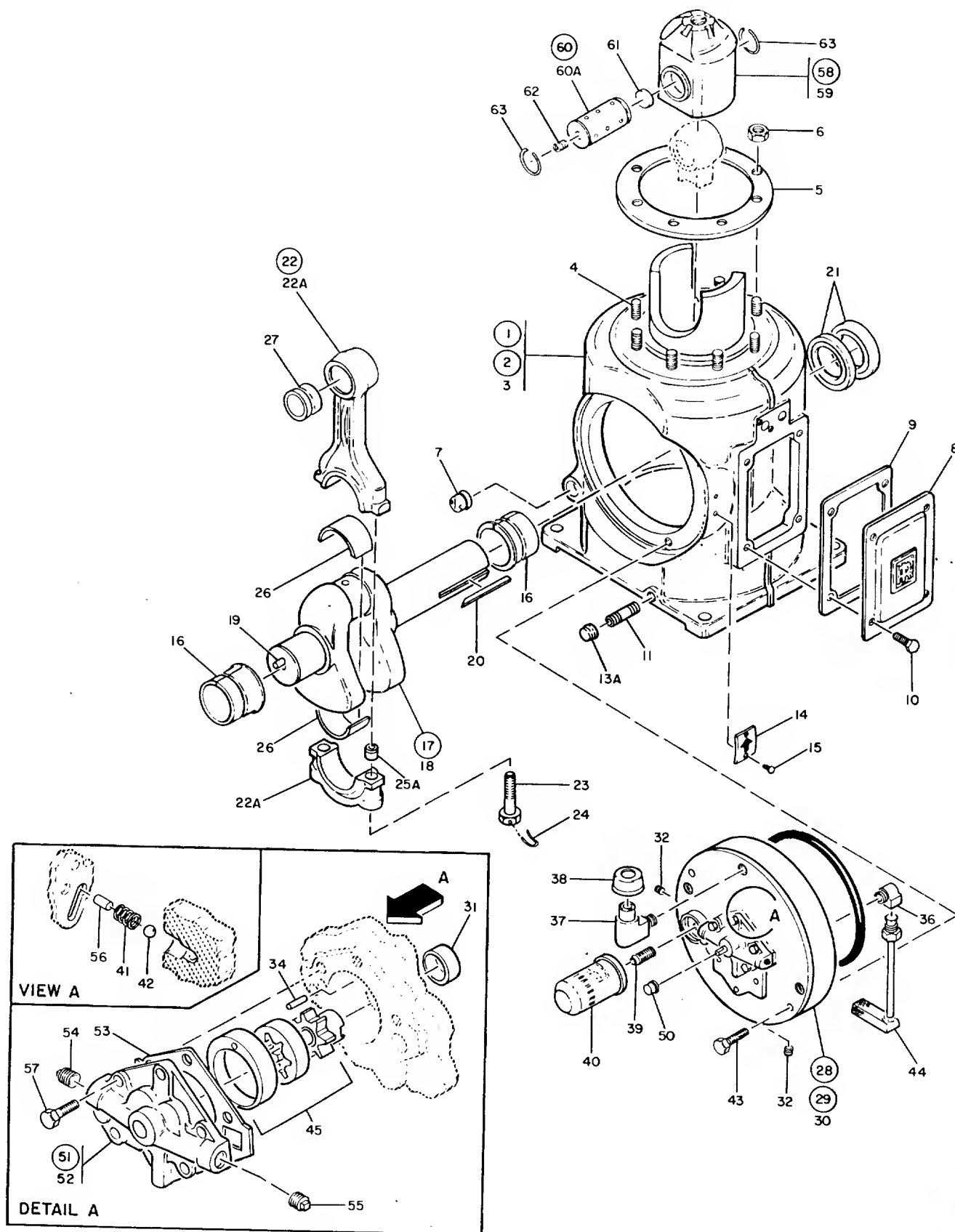


FIGURE 2. FRAME AND GEAR ASSEMBLY

REF NBR	NBR/ ASSY	DESCRIPTION
2-	1	FRAME + GEAR ASSEMBLY
2-1	1	. FRAME COMPLETE
2-2	1	. . FRAME ASSEMBLY
2-3	NP	. . . FRAME-BARE
2-4	8	. . . STUD
2-5	1	. . . GASKET-FRAME
2-6	8	. . . NUT
2-7	1	. . GAUGE-OIL LEVEL
2-8	1	. . COVER-FRAME
2-9	1	. . GASKET-COVER
2-10	4	. . CAPSCREW
2-11	1	. . NIPPLE-DRAIN
2-12	1	. . COUPLING-DRAIN
2-13A	1	. . CAP-PIPE
2-14	1	. . PLATE-ROTATION
2-15	2	. . SCREW-DRIVE
2-16	2	. BUSHING-MAIN BEARING
2-17	1	. CRANKSHAFT ASSEMBLY
2-18	NP	. . CRANKSHAFT-BARE
2-19	1	. . DOWEL-PUMP DRIVE
2-20	1	. . KEY-CRANKSHAFT
2-21	2	. SEAL
2-22	1	. ROD-CONNECTING + CAP COMP
2-22A	1	. . ROD-CONNECTING BARE
2-23	2	. . BOLT-CONNECTING ROD
2-24	2	. . WIRE-LOCKING
2-25A	2	. . ALIGNMENT BUSHING
2-26	1	. . BUSHING-CRANKPIN
2-27	1	. . BUSHING-CROSSHEAD PIN
2-28	1	. HOUSING-MB COMPLETE
2-29	1	. . HOUSING ASSEM-MB

REF NBR	NBR/ ASSY	DESCRIPTION
2-30	NP	. . . HOUSING-MB BARE
2-31	1	. . . BUSHING-OIL PUMP
2-32	2	. . PLUG-PIPE
2-34	1	. . DOWELPIN-OIL PUMP
2-35	1	. . O-RING M B HOUSING
2-36	1	. . ELBOW-MALE
2-37	1	. . ELBOW-BREATHER
2-38	1	. . CAP-BREATHER
2-39	1	. . ADAPTER-OIL FILTER
2-40	1	. . FILTER-OIL
2-41	1	. . SPRING-RELIEF VALVE
2-42	1	. . BALL-RELIEF VALVE
2-43	2	. . CAPSCREW
2-44	1	. PIPE ASSEMBLY-OIL SUCTION
2-45	1	. PUMP ASSEMBLY-OIL
2-50	1	. . COVER-SHAFT
2-51	1	. COVER-OIL PUMP COMPLETE
2-52	NP	. . COVER-OIL PUMP
2-53	1	. . GASKET-COVER
2-54	1	. . PLUG-OIL PRIMING
2-55	1	. . PLUG-PIPE
2-56	1	. . ROLLPIN
2-57	5	. CAPSCREW
2-58	1	. CROSSHEAD COMPLETE
2-59	1	. . CROSSHEAD-BARE
2-60	1	. . PIN CROSSHEAD COMPL
2-60A	1	. . . PIN-CROSSHEAD
2-61	1	. . . PLUG-PIN
2-62	1	. . . PIPEPLUG
2-63	2	. . RING-RETAINING

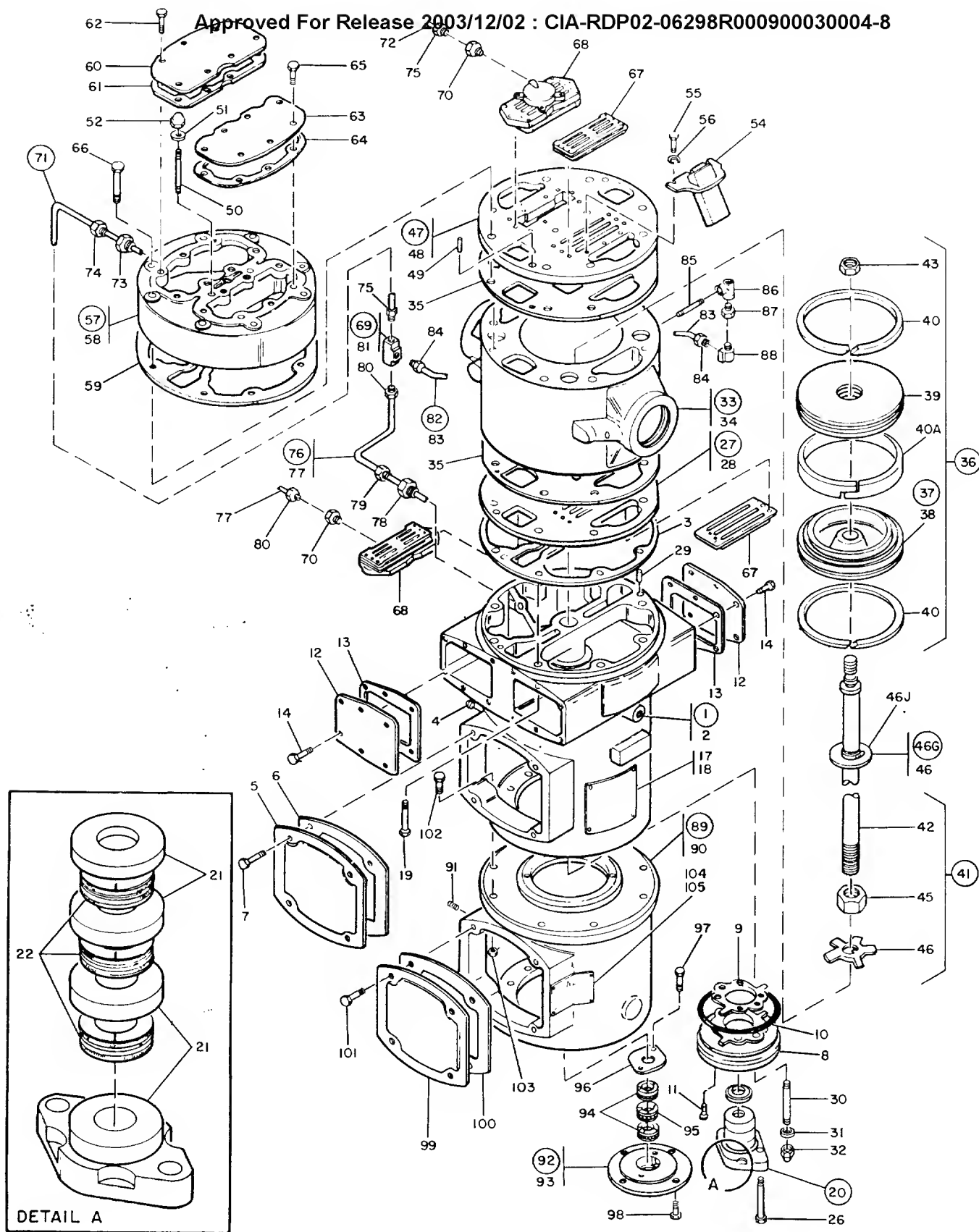


FIGURE 3. AIR END COMPLETE

REF NBR	NBR/ ASSY	DESCRIPTION
3-	REF	AIR END COMPLETE
3-1	1	. HEAD FRAME + DIST PIECE
3-2	1	. . HEAD-FRAME-BARE
3-8	1	. . . COVER-STUFFING BOX BARE
3-9	1	. . . GASKET-STUFFING BOX
3-10	1	. . . O-RING-STUFFING BOX
3-11	4	. . . CAPSCREW
3-3	1	. . GASKET-PORTPLATE
3-4	1	. . PIPEPLUG-DRAIN
3-5	1	. . COVER-BARE
3-6	1	. . GASKET-COVER
3-7	4	. . CAPSCREW
3-12	4	. . COVER-VALVE BARE
3-13	4	. . GASKET-COVER
3-14	24	. . CAPSCREW
3-17	1	. . PLATE-NAME
3-18	4	. . SCREW-DRIVER
3-19	8	. . CAPSCREW
3-20	1	. PACKING CASE + RING COMPL
3-21	1	. . CASE-PACKING
3-22	1	. . . SET-RING + SPRING
3-25	1	. . GASKET-PACKING CASE
3-26	2	. . CAPSCREW
3-27	1	. PORTPLATE COMPL-FRAME
3-28	NP	. . PORTPLATE
3-29	2	. . ROLLPIN-LOCATING
3-30	2	. . STUD-FRAME END
3-31	2	. . GASKET
3-32	2	. . CAPNUT
3-33	1	. CYLINDER COMPLETE
3-34	1	. . CYLINDER-BARE
3-35	2	. . GASKET-CYLINDER
3-36	1	. PISTON COMPLETE
3-37	1	. . PISTON ASSEMBLY
3-38	NP	. . . PISTON-FRAME HALF
3-39	NP	. . . PISTON-OUTER HALF
3-40	2	. . RING-PISTON
3-40A	1	. . RING-WEARING
3-41	1	. ROD-PISTON COMPLETE
3-42	1	. . ROD-PISTON
3-43	1	. . NUT-PISTON
3-45	1	. . NUT-XHEAD
3-46	1	. . LOCKWASHER-STAR
3-46G	1	. PLATE-OIL STOP ASSM
3-46H	1	. . PLATE-OIL STOP
3-46J	1	. . CLAMP-OIL STOP
3-47	1	. PORTPLATE COMPL-OUTER
3-48	NP	. . PORTPLATE
3-49	2	. . ROLLPIN-LOCATING
3-50	2	. . STUD-OUTER END
3-51	2	. . GASKET
3-52	2	. . CAPNUT
3-54	1	. . CHOKETUBE
		USED ON 9X7, 9-1/2X5 AND 9-1/2X7

REF NBR	NBR/ ASSY	DESCRIPTION
		SIZE MACHINES ONLY
3-55	3	. . CAPSCREW
3-56	3	. . LOCKWASHER
3-57	1	. HEAD ASSEM-OUTER COMPLETE
3-58	1	. . HEAD-OUTER BARE
3-59	1	. . GASKET
3-60	1	. . COVER-INLET VALVE
3-61	1	. . GASKET
3-62	7	. . CAPSCREW
3-63	1	. . COVER-DISCHARGE VALVE
3-64	1	. . GASKET
3-65	7	. . CAPSCREW
3-66	8	. . CAPSCREW
3-67	2	. VALVE COMPLETE-DISCHARGE
		SEE FIG 4 FOR DETAIL BREAKDOWN
3-68	2	. INLET VALVE & FAU
		SEE FIG 5 FOR DETAIL BREAKDOWN
3-69	1	PIPING-FAU COMPLETE
3-70	2	. CONNECTOR
3-71	1	. TUBING-ASSEMBLY
3-72	NP	. . TUBING-BARE
3-73	NP	. . FITTING-TANK
3-74	NP	. . BUSHING-REDUCING
3-75	NP	. . NUT-TUBING
3-76	1	. TUBING-ASSEMBLY
3-77	NP	. . TUBE-BARE
3-78	1	. . FITTING
3-79	1	. . BUSHING-REDUCING
3-80	NP	. . NUT-TUBE
3-81	1	. . TEE
3-82	1	. TUBING-ASSEMBLY
3-83	NP	. . TUBE
3-84	NP	. . NUT-TUBE
3-85	1	. . STUD-AUX VALVE
3-86	1	. . TEE
3-87	1	. . BUSHING
3-88	1	. . ELBOW
3-89	1	. DISTANCE PIECE COMPLETE
3-90	1	. . DISTANCE PIECE
3-91	1	. . PIPEPLUG
3-92	1	. . BOX ASSEMBLY-STUFFING
3-93	1	. . . BOX-STUFFING
3-94	2	. . . RING-SCRAPER
3-95	1	. . . RING-SCRAPER
3-96	1	. . . PLATE-PART SCRAPER
3-97	2	. . . CAPSCREW
3-98	4	. . CAPSCREW
3-99	1	. . COVER-DISTANCE PIECE
3-100	1	. . GASKET-COVER
3-101	34	. . . CAPSCREW
3-102	38	. . . CAPBOLT
3-103	38	. . . NUT
3-104	1	. PLATE-NL INSTRUCTION
3-105	4	. SCREW-DRIVE

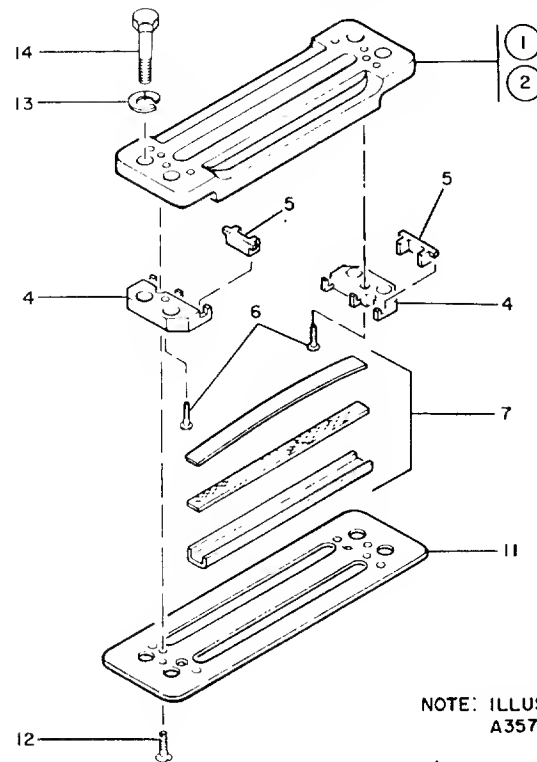


FIGURE 4. DISCHARGE VALVE [A243-A357]
(A243 Used on 6 x 5 and 7 x 5; A357 Used on 8 x 5 and 8 x 7)

REF NBR	NBR/ ASSY	DESCRIPTION
4-	1	VALVE-COMPL DISCH
4-1	1	. VALVE ASSEM DISCH
4-2	1	. . STOPPLATE ASSEM-
4-4	2	. . . HOLDER-GUIDE
4-5	6	. . . GUIDE-VALVE
4-6	2	. . . SCREW BUTTON HD
4-11	1	. . . PLATE-SEAT
4-12	2	. . . SCREW-FLT HD MACH
4-7	1	. . SET-CHANNELS & SPRINGS
4-13	6	. LOCKWASHER
4-14	6	. CAPSCREW

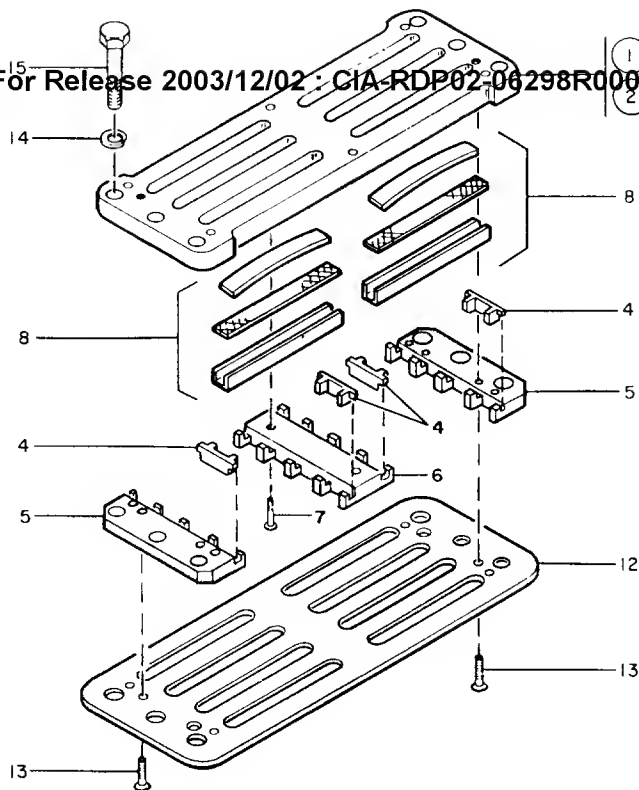


FIGURE 4. DISCHARGE VALVE [A829]
(Used on 9-1/2 x 5, 9 x 7 and 9-1/2 x 7)

REF NBR	NBR/ ASSY	DESCRIPTION
4-	1	VALVE-COMplete DISCH
4-1	1	. VALVE ASSEM DISCH
4-2	1	. . STOP PLATE-ASSEM
4-4	16	. . . GUIDE-VALVE
4-5	2	. . . HOLDER-OTR GUIDE
4-6	1	. . . HOLDER-CTR GUIDE
4-7	4	. . . CAPSCREW-BUTTON HD
4-12	1	. . . PLATE-SEAT
4-13	2	. . . SCREW-FLT HD MACH
4-8	1	. . SET-CHAN & SPRINGS
4-14	6	. LOCKWASHER
4-15	6	. CAPSCREW

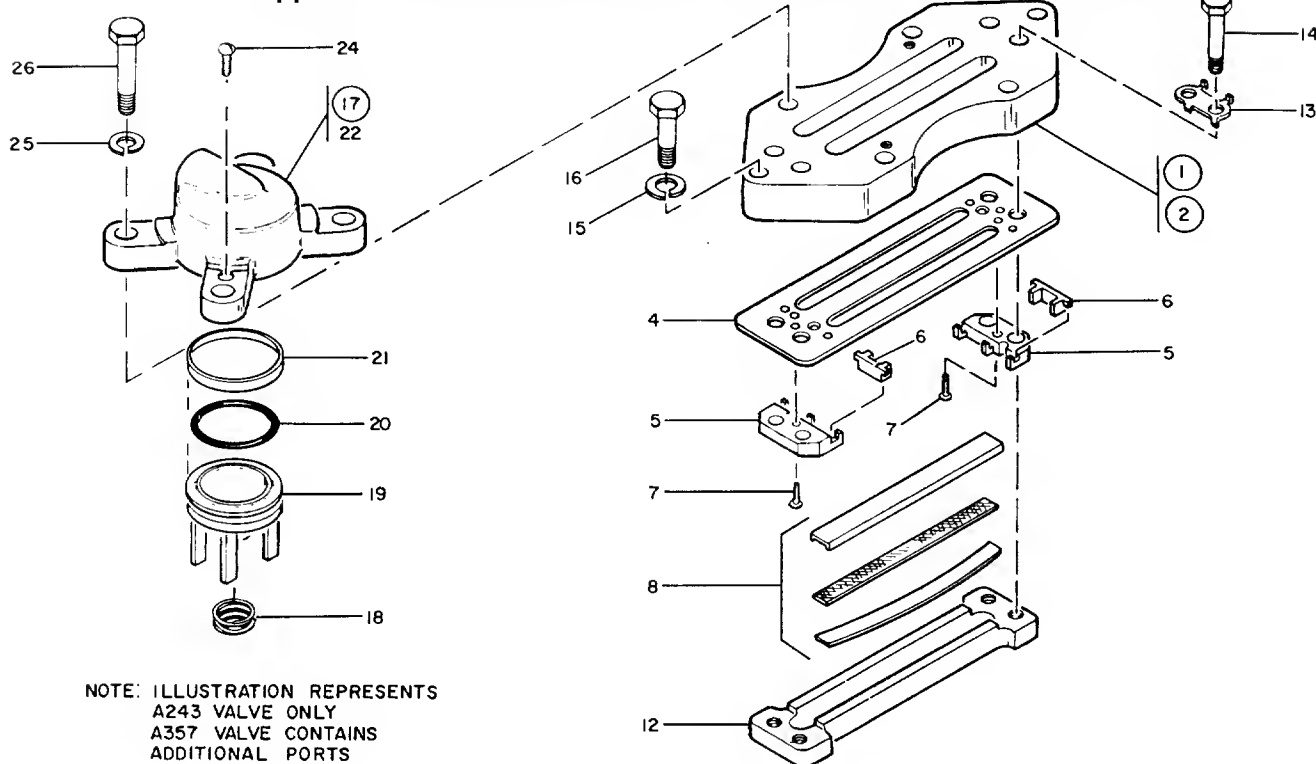


FIGURE 5. INLET VALVE AND FREE AIR UNLOADER [A243-A357]
(A243 Used on 6 x 5 and 7 x 5; A357 Used on 8 x 5 and 8 x 7)

REF NBR	NBR/ ASSY	DESCRIPTION
5-	1	INLET VALVE & UNLOADER
5-1	1	. VALVE COMPL INLET
5-2	1	. . SEAT COMPL INLET
5-4	1	. . . PLATE-SEAT
5-6	8	. . . GUIDE-VALVE
5-5	2	. . . HOLDER-GUIDE
5-7	4	. . . SCREW BUTTON HEAD
5-8	1	. . . SET-CHANNELS SPRINGS
5-12	1	. . . STOP PLATE INLET
5-13	2	. . . LOCK-BOLT
5-14	6	. . . CAPSCREW
5-15	6	. . . LOCKWASHER
5-16	6	. . . CAPSCREW
5-17	1	. UNLOADER - COMPLETE
5-18	1	. . SPRING - PLUNGER
5-19	1	. . PLUNGER-UNLOADER
5-20	1	. . O-RING
5-21	1	. . RING-PISTON
5-22	1	. . CAGE-UNLOADER
5-24	2	. . SCREW-ROUND HEAD
5-25	4	. . LOCKWASHER
5-26	4	. . CAPSCREW

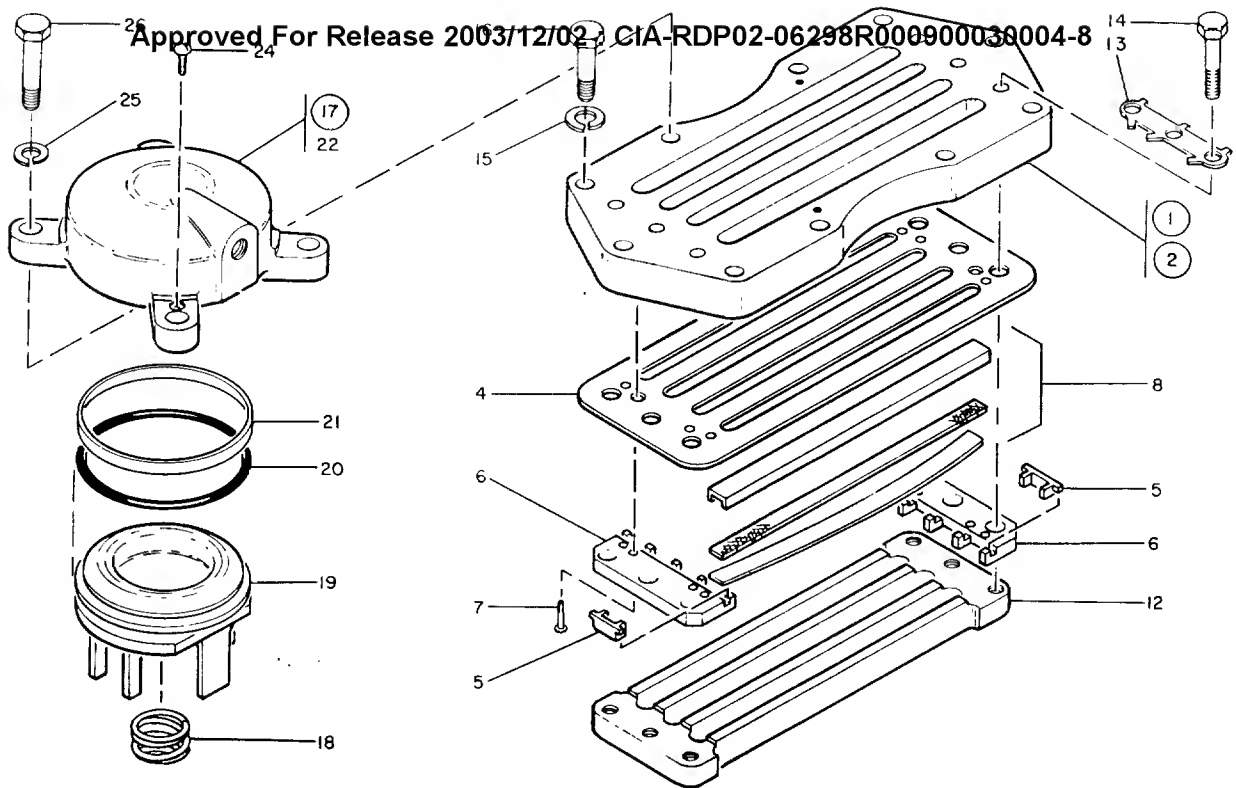


FIGURE 5. INLET VALVE AND FREE AIR UNLOADER [A465]
(Used on 9-1/2 x 5, 9 x 7 and 9-1/2 x 7)

REF NBR	NBR/ ASSY	DESCRIPTION
5-	1	INLET VALVE & UNLOADER
5-1	1	. VALVE COMPL INLET
5-2	1	. . SEAT COMPL INLET
5-4	1	. . . PLATE-SEAT
5-5	6	. . . GUIDE-VALVE
5-6	2	. . . HOLDER-GUIDE
5-7	4	. . . SCREW BUTTON HEAD
5-8	1	. . SET-CHANNELS & SPRINGS
5-12	1	. . STOPPLATE INLET
5-13	2	. . LOCK-BOLT
5-14	6	. . CAPSCREW
5-15	6	. LOCKWASHER
5-16	6	. CAPSCREW
5-17	1	. UNLOADER-COMPL
5-18	1	. . SPRING-PLUNGER
5-19	1	. . PLUNGER-UNLOADER
5-20	1	. . O-RING
5-21	1	. . RING-PISTON
5-22	1	. . CAGE-UNLOADER
5-14	2	. . SCREW-ROUND HEAD
5-25	4	. LOCKWASHER
5-26	4	. CAPSCREW

Special Engineering Service

We can help you with your compressed air problems by surveying your needs and recommending the proper compressor and air piping system for maximum efficiency.

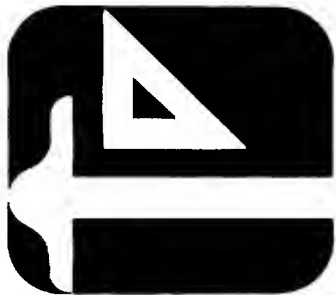
Spare Parts

We stock genuine I-R spare parts for your I-R equipment, ensuring the lowest cost parts or the substitution of inferior parts kept in good-as-new condition.

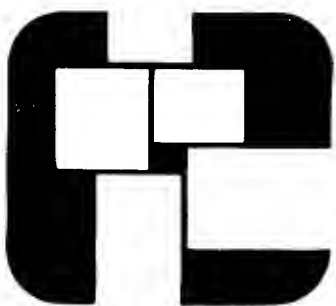
Fast Efficient Field Service

We maintain a staff of trained mechanics and service trucks to provide you with preventive maintenance or meet any emergencies you may have.

Approved For Release 2003/12/02 : CIA-RDP02-06298R000900030004-8

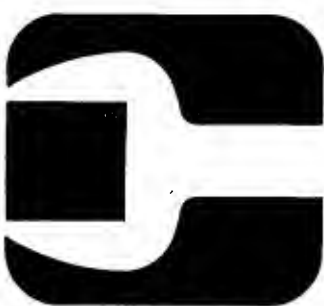


A world of experience... at your service!



Complete Stock of Equipment

Our stock of complete machines, which can usually take care of any need, is backed up by Ingersoll-Rand prompt factory shipment to assure you on-time delivery.



Complete Repair Service

Trained mechanics will repair or overhaul compressors by factory recommended methods, using only genuine parts.



Exchange Service Plan

We maintain stocks of compressors that can be substituted for your compressor while repairs are being made. This means no lost production time for you.

INGERSOLL-RAND®
AIR COMPRESSORS

Approved For Release 2003/12/02 : CIA-RDP02-06298R000900030004-8